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## (54) LIQUID CRYSTAL DISPLAY ELEMENT AND APPLYING DEVICE USING THE SAME

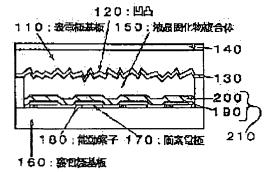
(57) Abstract:

PURPOSE: To modulate strong light with high

efficiency.

CONSTITUTION: This liquid crystal display element

is constituted by clamping a liquid crystal solidified composite 150 between transparent surface electrodes 130 on and from which light is made incident and is emitted and pixel electrodes 170, etc., and forming multilayered light shielding films 190 alternately laminated with first low-refractive index type thin films and first high-refractive index type thin films and multilayered reflection films 200 alternately laminated with second low-refractive index type thin films and second high-refractive index type thin films from the rear electrode substrate 160 side and forming the reflection function layer 210 consisting of the both films. At least one among Si. Ge. Cd. Te. CdSe and PbTe are used for the first high-refractive index type thin films having



light absorptivity, at least one among SiO2, MgF2, Na2AIF6 and CaF2 for the first low-refractive index type thin films having light transmittability and at least one among SiO2, MgF2, Na3AlF6 and CaF2 for the second low-refractive index type thin films.

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